



(5-03)

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FEE TRANSMITTAL
for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT**

(\$) 0.00

Complete if Known

Application Number	10/043,418
Filing Date	01/10/2002
First Named Inventor	Cynthia A. Henson
Examiner Name	Manjunath N. Rao
Art Unit	1652
Attorney Docket No.	960296.97486

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AUG 20 2003

TECH CENTER 1600/2900

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit Account Number
Deposit Account Name

17-0055

Quarles & Brady LLP

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments
☒ Charge any additional fee(s) during the pendency of this application
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 750	2001 375	Utility filing fee	
1002 330	2002 165	Design filing fee	
1003 520	2003 260	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

SUBTOTAL (1) (\$) 0.00**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X	= 0.00
Independent Claims	-3*** =	X	= 0.00
Multiple Dependent			

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 84	2201 42	Independent claims in excess of 3
1203 280	2203 140	Multiple dependent claim, if not paid
1204 84	2204 42	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$) 0.00

**or number previously paid, if greater. For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2050 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	2053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 410	2252 205	Extension for reply within second month	
1253 930	2253 465	Extension for reply within third month	
1254 1,450	2254 725	Extension for reply within fourth month	
1255 1,970	2255 985	Extension for reply within fifth month	
1401 320	2401 160	Notice of Appeal	
1402 320	2402 160	Filing a brief in support of an appeal	
1403 280	2403 140	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,300	2453 650	Petition to revive - unintentional	
1501 1,300	2501 650	Utility issue fee (or reissue)	
1502 470	2502 235	Design issue fee	
1503 630	2503 315	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 750	2809 375	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810 750	2810 375	For each additional invention to be examined (37 CFR § 1.129(b))	
1801 750	2801 375	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0.00**SUBMITTED BY**

Name (Print/Type)	Nicholas J. Seay	Registration No. (Attorney/Agent)	27,386	Complete (if applicable)	Telephone	608.251.5000
Signature				Date	08/15/2003	

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Date of Signature and Deposit: August 15, 2003

Nicholas J. Seay

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PATENT
TECH CENTER 1600/2900

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Cynthia A. Henson
Elizabeth H. Muslin
Suzanne E. Clark

Date: August 15, 2003

Serial No.: 10/043,418

Group Art Unit: 1652

Filed: 01/10/2002

Examiner: M.N. Rao

Title: MODIFIED BARLEY ALPHA-GLUCOSIDASE File No.: 960296.97486

RESPONSE

Commissioner For Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action mailed in the above-identified patent application on July 15, 2003, the applicant responds as follows:

In the claims:

Please amend Claims 7 and 9 as follows:

1. (Original) A modified α -glucosidase enzyme, the modified form differing from the wild-type barley α -glucosidase by proline being substituted at residue 340, the modified enzyme retaining activity at a higher temperature than the wild-type enzyme.

2. (Original) A DNA sequence which encodes the expression of the enzyme of claim 1.

3. (Original) A transgenic host which expresses the DNA sequence of claim 2 to produce the modified barley α -glucosidase.